

## REFERENCES

- ABDULALI, H. (1965): The birds of the Andaman and Nicobar Islands. *J. Bombay nat. Hist. Soc.* 61(3): 483-571.
- (1967): The birds of the Nicobar Islands, with notes on some Andaman birds. *J. Bombay nat. Hist. Soc.* 64(2): 139-190.
- ALI, S. In THOMPSON, A. L. [Editor] (1964): A New Dictionary of Birds. London (Nelson) and New York (McGraw-Hill).
- ALI, S. & RIPLEY, S. D. (1969): Handbook of the Birds of India and Pakistan, together with those of Nepal, Sikkim, Bhutan and Ceylon. Bombay. Vol. 2.
- BAKER, E. C. S. (1924, 1929): Fauna of British India, Birds. ed. 2 & 6. London. (Taylor & Francis).
- MAYR, E. (1960): in Peters' Check-list of birds of the World. 9. Cambridge, Massachusetts (Museum of Comparative Zoology).
- RIPLEY, S. D. (1961): A Synopsis of the Birds of India and Pakistan, together with those of Nepal, Sikkim, Bhutan and Ceylon. Bombay Natural History Society, Bombay.
- SHARPE, R. F. (1894): Catalogue of the Birds in the British Museum. 23. London. British Museum (Natural History).

## 15. NOTES ON INDIAN SNAKES—1

(With two plates)

Albinism in Russell's Sand Boa (*Eryx conicus*)

In October 1969 an unusual specimen of *Eryx conicus* was collected near Madras and given to me. Its length at that time was 275 mm. It was a uniform light cream in colour, the underside being slightly lighter in shade. The only deviation from albinism were the eyes, which were black.

Since capture the snake has lived well on mice and measures about 500 mm. It began to show brown speckled markings on its dorsal scales, and we supposed that the snake was darkening as it approached maturity and some true pigment came through; this action appears to have ceased.

Albinism in snakes is not common but has been observed in a large number of genera including the American rattlesnakes (*Crotalus*), King snakes (*Lampropeltis*), boa constrictors and in India the python (*P. molurus*) and probably others.

Two-headed Snake (*Cerberus rhynchops*)

The Dog-faced Watersnake (*Cerberus rhynchops*) is a rear-fanged estuarine snake common along coastal India. Madras City and environs have many inland waterways where this snake abounds. The specimen in the photo was collected near Madras in 1969 and brought to the office of Mr. Harry Miller, a photographer-naturalist residing in Madras. The specimen was alive and healthy and about 350 mm. long. Unfortunately the owner of the snake was unwilling to part with it and so no observations could be made how it feeds etc. Two-headed snakes usually don't survive long after birth, generally being anatomically defective. It is a rare phenomenon as in other animals. In the United States are records of two-

headed rattlesnakes (*Crotalus*), garter snake (*Thamnophis*), and king snake (*Lampropeltis*) and others. In some cases one head is only partially or abnormally developed and the normal head dominates. In others both heads are nearly equal in activity and each tries to control the body. Eventually one head tires out and the other takes over. In this latter case the two heads are sometimes observed fighting over the same mouse (Klauber).

Another Indian snake of which a two-headed example was found is *Natrix piscator*, obtained near Nagercoil (S. India)<sup>1</sup>.

### Social Behaviour of Common Krait (*Bungarus caeruleus*)

We routinely keep 20 to 30 common kraits at the Madras Snake Park for venom extraction and to study their habits. The krait has some interesting behavioural traits. Being cannibalistic they are extremely wary of each other. When two new males or a male and female are placed together they generally become oblivious of you and carry out a jerking examination of each other. After this familiarization they will not bother the other unless ready to mate. Sometimes though, a new snake will move around causing a commotion among all the snakes in the enclosure. The photograph illustrates a newly introduced male krait (white markings) attacking another large male. The male "combat dance" is observed with this species as with many others but in these rituals (thought to be associated with sexual behaviour) the contest is a harmless 'wrestling match'. The krait here demonstrates an exception with its aggressive biting attacks. The snakes were separated with difficulty, neither suffered ill effects.

Besides this aggressive tendency kraits show a curiosity and sensitivity towards each other most of the time that is observed in other species only at mating time. The nocturnal habits of this snake make it difficult to observe; it appears there is a lot of interesting study to be done on Krait behaviour.

### Cannibalism in juvenile Russell's Viper (*Vipera r. russellii*)

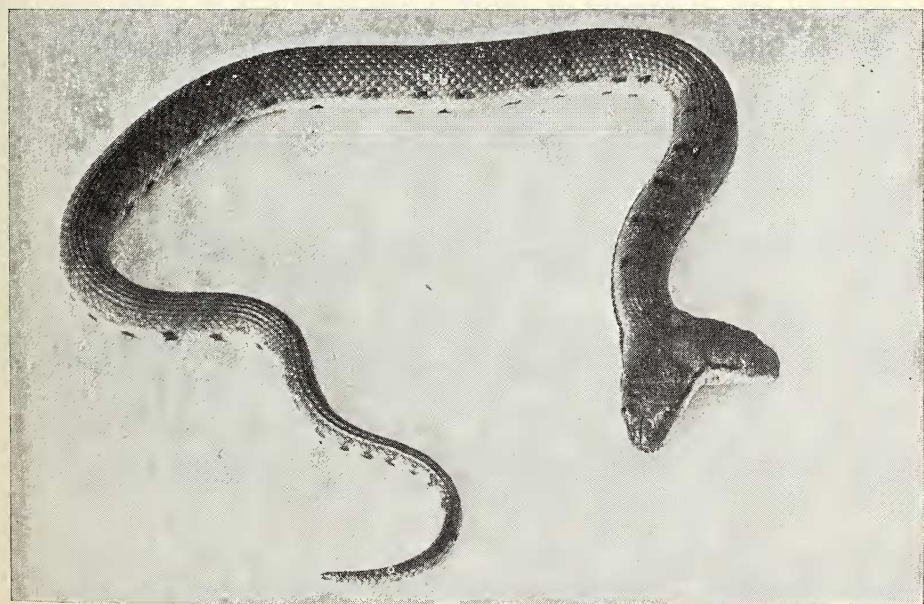
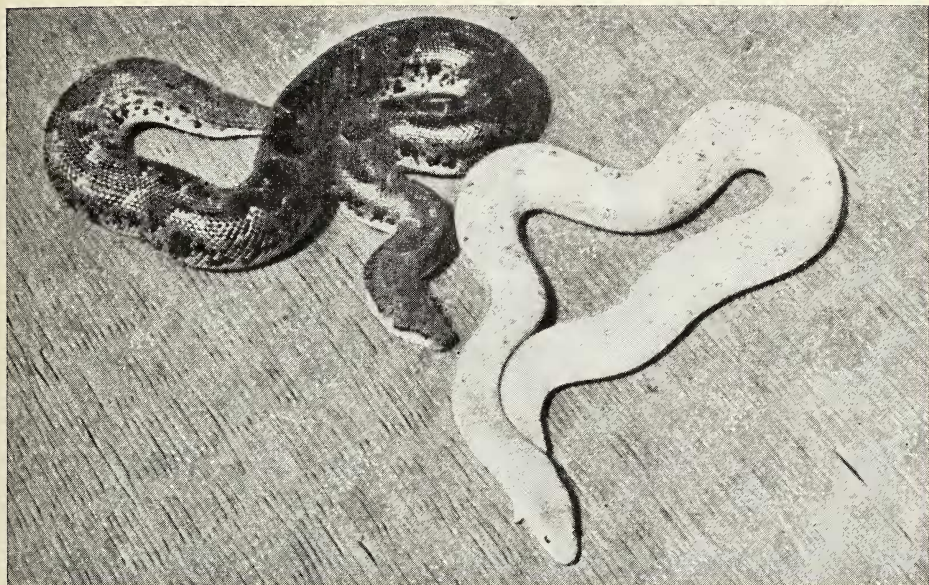
A female Russell's Viper commonly gives birth to about 25 young. It is difficult to raise these young, one reason being that they frequently attempt to or succeed in swallowing each other. This habit has been widely observed and reported. The photograph shows an

---

<sup>1</sup> Earlier records of double-headed snakes from India relate to the Wolf Snake (*Lycodon aulicus*), Cobra (*Naja naja*) and Russell's Viper (*Vipera russellii*). In *Zoonoz* 44(3) (1971) of the San Diego Zoo, C. E. Shaw writes of double-headed California King snake (*Lampropeltis getulus californiae*), one of which lived for 6½ years.—EDS.



Whitaker: Indian Snakes



*Above* : Normal coloured and albino Russell's Sand Boa.

*Below* : Two-headed Dog-faced Water Snake.

*(Photos : Harry Miller)*